

## RANGE EXTENSIONS OF ODONATA IN NORTH CAROLINA, UNITED STATES

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**Abstract** — New range extensions are listed for 15 spp. from the state of North Carolina (NC), United States. *Aeshna tuberculifera* Walker, *Gomphurus ventricosus* (Walsh), *Hylogomphus abbreviatus* (Hagen), and *Orthemis ferruginea* (Fab.) are new from NC. *Tramea calverti* Mutt. sighted previously in NC, was collected there for the first time.

### Introduction

This paper lists data which indicate significant range extensions for 15 species of Odonata in

North Carolina. The range extensions listed include 7 which are southern or southeastern, 3 which are eastern, and 5 which are northern or northwestern.

Specimens cited are in the author's collection or have been deposited in the Florida State Collection of Arthropods (FSCA).

### List of species

Lestidae. — *Archilestes grandis* (Rambur): Franklin Co., Justice, Sept. 27, 1971, 1 ♀. Easternmost record and first for transitional

area between Piedmont and Coastal Plain of NC. Previously recorded from Mountain Region (WRAY, 1952; INGRAM 1976) and taken by author in northern Piedmont of NC. — *Lestes forcipatus* Rambur: Wilson Co., Saratoga, July 19, 1972, 1 ♀. First record for Coastal Plain (southern range extension). Also taken by D.R. Paulson (pers. comm.) and by author in northern Piedmont of NC.

Calopterygidae. — *Calopteryx angustipennis* (Selys): Cumberland-Harnett Co., Little R., May 26, 1981, 4 ♂; Halifax-Nash Co., Fishing Creek, 1975-81, 10 ♂, 8 ♀; Richmond Co., Mountain Creek, NW Ellerbe, Apr. 27, 1981, 1 ♂, 5 ♀; Yadkin Co., Yadkin R., W Winston-Salem, May 25, 1983, 1 teneral ♂. Last record for western Piedmont, the remaining ones representing disjunct populations in eastern Piedmont and southwestern Coastal Plain. Range extension eastward from Mountain Region, where previously recorded (BRIMLEY, 1938; WESTFALL, 1942).

Aeshnidae. — *Aeshna tuberculifera* Walker: Burke Co., Jonas Ridge, 1100 m., Sept. 29, 1969, 1 ♂; Wilkes Co., Maple Springs, Sept. 17, 1967, 1 ♂. First records for NC (southern range extension).

Gomphidae. — *Stylogomphus albistylus* (Hagen): Montgomery Co., Rock Creek, SW Troy, May 22-July 17, 1960-66, 5 ♂, 1 ♀; Moore Co., Mill Creek, Vass, July 2, 1969, 1 ♀. First records for SW Piedmont and Sandhills of NC (southeastern range extension). Also taken by author in NE Piedmont of NC. — *Arigomphus villosipes* (Selys): Warren Co., Inez, June 9, 1980, 1 ♂; Washington Co., Conaby Creek, NE Plymouth, June 18, 1975, 1 ♂. First records for Piedmont and Coastal Plain of NC (southern range extension). Recorded earlier from Mountain Region of NC (WESTFALL, 1942). — *Gomphurus dilatatus* (Rambur): Yadkin Co., Yadkin R. at Forsyth Co. line, June 30, 1982, 1 ♂. Identified by S.W. Dunkle. Northern range extension. — *Gomphurus ventricosus* (Walsh): Caswell Co., Country Line Creek, Yanceyville, July 7, 1980, 1 ♀; May 13-22, 1982-83, 7 ♂, 1 ♀; Franklin-Vance Co., Tar R., June 8, 1981, 1 ♀. First records for NC (southern range extension). — *Hylogomphus abbreviatus* (Hagen): Caswell Co., Hyco Creek and Country Line Creek, May, 1980-82, 8 ♂, 2 ♀; Chatham Co., New

Hope Creek and Rocky R., May 5-16, 1969-82, 1 ♂, 4 ♀. First authentic records for NC (southeastern range extension); earlier records (BRIMLEY, 1906; NEEDHAM & WESTFALL, 1955) were based on records of *H. apomyius* Donnelly (CARLE, 1979).

Macromiidae. — *Macromia illinoensis* Walsh: Cumberland Co., Cape Fear R., Pope Park, Fayetteville, July 24, 1981, 1 ♂. First record for Southeastern Coastal Plain (southern range extension). Previously recorded from Mountain Region (BRIMLEY, 1938; WESTFALL, 1942) and taken by author in Piedmont of NC.

Libellulidae. — *Celithemis bertha* Williams: Catawba Co., Jones Lake, Oct. 4, 1983, 1 ♂; Durham Co., Falls of Neuse Lake, Aug. 3, 1982, 2 ♂; Granville Co., Kerr Lake near Virginia State Line, Aug. 7, 1973, 1 ♂. Northern range extensions. All above records from Piedmont of NC. The author has specimens from a number of localities in southern and eastern NC. — *Orthemis ferruginea* (Fabricius): Cumberland Co., Pope Park, Fayetteville, Sept. 23, 1967, 1 teneral ♂; Greene Co., Snow Hill, Oct. 14, 1975, 1 ♂; Hoke Co., Buffalo Springs, Sept. 11, 1974, 1 ♂. First records for NC (northern range extension). — *Sympetrum semicinctum* (Say): Franklin Co., Crooked Creek, Bunn, July, 1970 and June, 1974, 2 ♀. First records from the transitional area between the Piedmont and Coastal Plain in NC (eastern range extension). Previously recorded from Mountain Region (BRIMLEY, 1938; WALKER, 1951; NEEDHAM & WESTFALL, 1955) and taken by the author in the western Piedmont of NC. — *Dythemis velox* (Hagen): Rockingham Co., Eden, Sept. 16, 1976, 1 ♂; the northernmost locality for species in NC; recorded earlier from southern NC (CUYLER, 1968), this species has expanded its range through the Piedmont. — *Tamea calverti* Muttkowski: Currituck Co., Knott's Island, Aug. 8, 1969, 2 ♂. Northern range extension. Previously sighted in SE NC (CUYLER, 1968, as *T. cophysa* Hagen).

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